

PP-110

Diagnosis of HIV

Sakshi Bansal

Amity Institute of Biotechnology, Amity University Madhya Pradesh, Gwalior

Human immunodeficiency virus (HIV) is a lentivirus that leads to acquired immunodeficiency syndrome (AIDS). Different HIV testing kits have been developed to detect antibodies directed towards different part of HIV. Therefore, to overcome this challenge, a wide range of biosensors have been developed for early diagnosis of HIV infection. HIV infected patients are easy to combine with various opportunistic infection due to their low immunity, improving microbiological diagnosis in these patients is of high priority clinical importance. The specific test for diagnosis of a HIV infection are screening test. Enzyme linked immunosorbent assay (ELISA), simple agglutination assay etc. Such as nucleic acid, genes are used in nanomedicine, biosensors to enable Cary diagnosis of HIV. Despite the significant progress in HIV biosensing in the last years, there is a great need for the development of point-of-care (POC) technologies which are affordable, robust, easy to use, portable, and possessing sufficient quantitative accuracy to enable clinical decision making. Globally, 36.9 million people are living with human immunodeficiency virus (HIV) infection/acquired immunodeficiency syndrome (AIDS). HIV infection reduces the number and functionality of CD4 helper lymphocytes and CD4 lymphocytes direct acquired immunity against most pathogens. More specifically an estimated 94,0000 people died from HIV – related causes globally in 2019 (for the number of AIDS – related death). Therefore, the early diagnosis of HIV infection is of great importance for all scientists around the world. HIV infection is often diagnosed through enzyme linked immunosorbent assay (ELISA) which detects the presence or absence of HIV antibodies (such as IgM/ IgG, Abs). This best analyzes blood or saliva for antibodies to the virus.